

Amendments to the Claims

Claims 1-18 (Canceled)

Claim 19 (New) A computer-readable medium for storing a system stream that is convertible by a converting apparatus from a first format (TS) to a second format (PS), the system stream including a video elementary stream generated by encoding video information and an audio elementary stream generated by encoding audio information with the video elementary stream and the audio elementary stream being multiplexed, wherein

the system stream is allowed to have a first format (TS) and a second format (PS), the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS), and

according to the constrained format,

a presentation of the video information of continuous complete data blocks always starts at a top field and ends at a bottom field, the continuous complete data blocks being included in a continuous reference presentation time for video information and audio information, and the continuous reference presentation time including at least one data block.

Claim 20 (New) The computer-readable medium according to claim 19, wherein

the first format (TS) has a packet structure dividing data by a packet, the second format (PS) has a pack structure dividing data by a pack, and a size of the pack is greater than a size of the packet,

the continuous complete data blocks include at least one multiplex block comprising a predetermined number of packets containing the video information or the audio information, an amount of data contained in the multiplex block being equal to or less than an amount of data contained in the pack, and

the multiplex block is a unit for converting the system stream from the first format (TS) to the second format (PS).

Claim 21 (New) The computer-readable medium according to claim 20, wherein the at least one multiplex block comprises a plurality of packets.

Claim 22 (New) The computer-readable medium according to claim 19, wherein the first format (TS) is a transport stream format and the second format (PS) is a program stream format.

Claim 23 (New) An information recording apparatus for encoding video information and audio information into a system stream and recording the system stream to a computer-readable medium,

the system stream being allowed to have a first format (TS) and a second format (PS),

the information recording apparatus comprising:

a first encoding section operable to encode video information and audio information in a predetermined encoding manner according to the first format (TS) to generate a video elementary stream and an audio elementary stream;

a second encoding section operable to perform system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS); and

a control section operable to control the first encoding section and the second encoding section, wherein

the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS),

the control section controls the first and second encoding sections so that each encoding is done according to the constrained format, and

according to the constrained format, a presentation of the video information of continuous complete data blocks always starts at a top field and ends at a bottom field, the continuous complete data blocks being included in a continuous reference presentation time for video information and audio information, and the continuous reference presentation time including at least one data block.

Claim 24 **(New)** The information recording apparatus according to claim 23, wherein
the first format (TS) has a packet structure dividing data by a packet, the second format (PS) has a pack structure dividing data by a pack, and a size of the pack is greater than a size of the packet,

the continuous complete data blocks include at least one multiplex block comprising a predetermined number of packets containing the video information or the audio information, an amount of data contained in the multiplex block being equal to or less than an amount of data contained in the pack, and

the multiplex block is a unit for converting the system stream from the first format (TS) to the second format (PS).

Claim 25 **(New)** The information recording apparatus according to claim 24, wherein the at least one multiplex block comprises a plurality of packets.

Claim 26 **(New)** The information recording apparatus according to claim 23, wherein the first format (TS) is a transport stream format and the second format (PS) is a program stream format.

Claim 27 **(New)** An information recording method for encoding video information and audio information to a system stream and recording the system stream to a computer-readable medium,

the system stream being allowed to have a first format (TS) and a second format (PS),

the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS),

the information recording method comprising:

encoding video information and audio information in a predetermined encoding manner according to the first format (TS) to generate a video elementary stream and an audio elementary stream; and

performing system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS);

wherein, according to the constrained format, a presentation of the video information of continuous complete data blocks always starts at a top field and ends at a bottom field, the continuous complete data blocks being included in a continuous reference presentation time for video information and audio information, and the continuous reference presentation time including at least one data block.

Claim 28 (New) The information recording method according to claim 27, wherein

the first format (TS) has a packet structure dividing data by a packet, the second format (PS) has a pack structure dividing data by a pack, and a size of the pack is greater than a size of the packet,

the continuous complete data blocks include at least one multiplex block comprising a predetermined number of packets containing the video information or the audio information, an amount of data contained in the multiplex block being equal to or less than an amount of data contained in the pack, and

the multiplex block is a unit for converting the system stream from the first format (TS) to the second format (PS).

Claim 29 (New) The information recording method according to claim 28, wherein the at least one multiplex block comprises a plurality of packets.

Claim 30 (New) The information recording method according to claim 27, wherein the first format (TS) is a transport stream format and the second format (PS) is a program stream format.